МОСТОВЕ, МОСТОВЕ!

● *Корица на каталога -- стар и нов мост в Бяла*

● *Umschlagseite des Katalogs: Alte und Neue Brücke in Bjala*

● *Обложка каталога – старый и новый мост в г. Бяла*

● *Front cover of the catalogues– the old and the new bridge at Byala*

МОСТОВЕ, МОСТОВЕ!
МОСТЫ, МОСТЫ!

BRÜCKEN, BRÜCKEN!
BRIDGES, BRIDGES!

долината на Русенски Лом в гр. Русе.

Априлският пленум на ЦК на БКП в мостостроенето беше ознаменуван с първите наши напрегнати мостове.

Проектирането на жп участъците Перперек—Кърджали и удвоения София—Мездра обогати нашето мостостроене с редица модерни и с прогресивни системи мостове като дъгите, с укрепващи греди система Майер

Важен момент за внедряване на прогресивни технологии беше усвояването на монтаж с кран-ферма „Сичет". С нея бяха монтирани гредите на виадуктите по пътя Пирдоп—Розино. Тук за пръв път беше приложена новата мостова система „Камертон".

Принос за производство на сглобяеми мостове даде ЗСК Кремиковци, а после и други заводи за строителни конструкции. Започнал с единични сглобяеми мостове в района на металургичния комбинат Кремиковци, ЗСК достигна до създаване на първа номенклатура сглобяеми мостови греди.

Голям принос за развитието на нашите мостове и естакади в градски условия имат строителите на „Инжстрой" при СГНС. Това е надлеза над гара Сердика, надлез Дървеница, надлезите по бул. Пенчо Славейков и алея Яворов. Най-голямото градско съоръжение мост-естакада по бул. Ленин при отклонението за аерогара София е осъществено по специална повдигателна технология.

В началото на 1970 година бе създадено като поделение на Стопанско обединение „Пътни строежи" специализираното управление „Мостстрой" за строителството на големите мостови съоръжения, осигуряващи необходимите пропускателни възможности на съвременните транспортни комуникации.

Колективът на „Мостстрой" продължава достойните традиции на своите предшественици. Той изпрати Шестата петилетка с предсрочно изпълнение на плановете по всички показатели и заслужено се гордее с ордена „Червено знаме на труда".

Предсрочно бе изпълнен плана за двете години от Седмата петилетка в чест на 60-годишния юбилей на Великата октомврийска социалистическа революция.

За вечно съхранение в колектива са и двете юбилейни знамена на Националния транспортен комплекс — „30 години от Девети септември 1944 година" и „60 години от Великата октомврийска социалистическа революция", символи на вдъхновение за още по-големи успехи в мостовото строителство.

За предсрочно изпълнение на строителните задачи — с отлично качество на предадените обекти, над 350 души — цяло съзвездие от мостостроители са удостоени с правителствени отличия — ордени и медали.

● *Дяволски мост над р. Арда*
● *Дьявольский мост над рекой Арда*
● *Die Teufelsbrücke über die Arda*
● *Dyavolski (the Devil's)Bridge spanning the River Arda*

Bridges, bridges, bridges! Across bays, rivers and highways they span deep precipices, dams and gorges, carrying railway lines, streets and whole districts.

Bridges are both functional structures and objects of aesthetic influence, a dominant element of the exterior. They lend character to a whole region or settlement, step up the rates of economic development. As to the place and importance of bridges within the system of transport communications, there is no need to discuss them for they are simply indispensable there.

So, what are bridges: super-communications, an engineering device or an architectural monument? In any case they are a kind of a symbiosis between technology and art, a product of the constructive and imaginative fusion of the exact mathematical methods and the intuitive aesthetical process.

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The old Bulgarian bridges are a remarkable expression of the art of stone-working in our lands. Their compositional solutions are the result of their dual purpose of engineering facilities designed to span river-beds by roads and of a manifestation of artistic mastery. Their beauty derives mainly from their architectural layout – semi-circular arches, flying buttresses, cornices and niches. These laconic architectural forms combined with the big volume of the bridge lend it a monumental character and impressiveness, giving, besides, aesthetical pleasure to the eye.

The old stone bridges in Bulgaria, having survived numerous natural calamities, the devastations of fire and the barbarity of bondage now stand as an embodiment of the national spirit which deserves to live in freedom. And if a legend of olden times is at the one end, at the other is their importance now, giving new meaning to their existence with every passing day.

There are three objective prerequisites determining the development of bridge construction in the Bulgarian lands from the oldest times: on the one hand that was the strongly broken relief, cut by a well developed network of rivers, deep gorges, dry valleys and turbulent mountain brooks; on the other, the central geographical location on the mainroad from Europe to Asia Minor and the road from the Danube to the Aegean, along which the exchanges of goods and spiritual values between peoples from North to South and from East to West, has been carried out from times immemorial. The most important, however, is that in the present Bulgarian lands, peoples, famous for their advanced civilizations and culture used to live and develop; the present Bulgarian lands were once occupied by states of highly developed settlement network.

When in the second century A.D. the Románs conquered the lands of the Thracians, a number of strong fortified castles defended the Empire from the incursions of the Dacians. The Romans built the famous Danubian road across the whole of Moesia, linking Montana (present-day Mihailovgrad) with Nicopolis ad Istrum (Nikyup) and Durostrum (Silistra) to ensure good communications between these fortresses and a roundabout way of swift operative regroupings. Along such a road the Roman chariots could travel fast only if the big rivers Ossum, Isker, Vit and Yantra were spanned by bridges!

No doubt, the Byzantines also built roads and, respectively, bridges, and their structures, beautiful and solid, can be found to this day in the Bulgarian lands. When the Proto-Bulgarians and Slavs shook hands like brothers and set up one of the most powerful medieval states, they also created an architectural and construction school of their own. Can anyone imagine the palace-fortress, built at the River Ticha under Omourtag's reign and described in the Chatalar inscription, without a bridge spanning the river? And what would Turnovo have looked like, with its fortresses at Tsarevets, Trapezitsa and Sveta Gora, without the bridges across the meandering Yantra river?

These bridges have long disappearad for good. But since the 14th century onwards, a great number of bridges built in the Bulgarian lands during the Ottoman bondage, have been standing solidly to this day in their places testifying to the Bulgarian building traditions, which have survived the darkest years of slavery. The uninterrupted building traditions also produced the first historical monuments of the Bulgarian Revival Period which started in the 18th century.

In the 1972–1974 period the Field Research Club made a comprehensive survey of 66 old Bulgarian bridges, built primarily in the Rhodope region. There is a big difference between the bridges built by Bulgarian master-builders and those made by Turkish bridge builders: the Turkish bridges had pointed arches of a Persian type and being statically unstable are consequently in a worse state now than the Bulgarian bridges built in the pattern of a smooth arch.

Some of the bridges are arched, designed like a complex smooth curve coinciding with incredible precision with the line of the load (Kadin, Dyavolski /the Devil's/, Kamer bridges, etc.) Their builders have manifested an amazing sense of statical precision! The Kamer bridge was built on the site of an old Thracian bridge along the Bessarap road!

The sound building traditions, confidence in his professional skill and the proud Bulgarian spirit were reflected in the famous works of the great Bulgarian self-taught builder, Usta Kolyo Ficheto, when designing the bridge spanning the River Yantra at Byala:

'Pasha effendi, if I do not build the bridge according to my model at a cost of 700,000 groshes, cut off my head!'

And this is the bridge, built in 1865–1867, and considered to be a masterpiece of the Bulgarian architectural revival.

Felix Kanitz, an Austrian traveller, wrote: 'How was it possible to span the dirty and muddy River Yantra by a stone bridge, built very carefully of thick limestone, 276 m long, 9 m wide with 14 spans and finely suclpted figures of Turkish valis. The bridge was built within three years and completed in 1870; its construction was performed during the rule of the great Turkish vali Mithad Pasha. I chanced to meet the master-builder himself in 1872 near the small town of Kilifarevo. There Nikola Fichev stood in the big pub of the inn – a modest Bulgarian of the Balkan Range regions, who, in the way he dressed and in manners, did not differ from the other people of the mountain range villages. He spoke with justified confidence about his construction and emphasized strongly the fact that the bridge was built for 700,000 groshes. Moreover, he seemed to be hardly aware that he had created a structure which, excluding those in

Constantinople, could be considered the most perfect hydro-technical facility in Turkey and which could give credit to prominent European technicians.

The liberation of Bulgaria from Ottoman bondage marked the second stage of bridge construction in the country. The main network of roads and railway lines was built by 1890. A number of steel bridges were erected at that time, whose component structures were imported from abroad – mainly Belgium – the Charlesroi firm and Germany – the Thyssen firm. Some bridges of stone masonry were also built with great skill and fine taste along the Sofia-Mezdra railway line. Gradually concrete and ferro-concrete gained grounds in bridge construction in the early 20th century. In spite of the hard conditions of work of the first designers and builders of bridges, in spite of the outmoded system of auctioning in granting the construction of bridges which did not by far guarantee high quality of the work while the contractors extracted maximum profits, this pleiad of the first Bulgarian engineers, builders of bridges, made a number of bridges spanning big Bulgarian rivers, which were modern for their time.

September 9, 1944, marked the beginnings of a comprehensive socialist construction of a network of modern roads and railway lines according to a well-substantiated plan. The building of a number of new railway lines was launched at that time like those of Pernik-Volouyak, Lovech-Troyan, Shoumen-Karnobat, Blagoevgrad-Petrich, Sofia-Karlovo-Bourgas. The basic network of roads was improved at that time, the new arch bridge was built at Koprivshtitsa railway station as well as the bridges at Klissoura and Bounovo.

The construction of the Bridge of Friendship across the Danube between October 1952 and June 1954 was a turning point in the Bulgarian practice of bridge-construction and a genuine school for a number of engineers of a new generation. That was the first international construction project of a large-scale where Soviet, Bulgarian and Romanian specialists contributed their work with enthusiasm and high skill in the name of socialist fraternity. Czech and Hungarian specialists participated with the supply of part of the steel structures.

At the same time approximately the first steel bridges along the railway lines Levski-Svishtov, Sofia-Mezdra at Bov railway station and Plovdiv-Skoutare, were designed and built in this country without any foreign help.

A new generation of engineers, employed in road administration, designed and built a number of up-to-date bridges like the new bridge spanning the Yantra at Byala, the bridge in Veliko Turnovo, the bridge over the valley of the Roussenski Lom River in Roussé.

The April 1956 Plenum of the CC of the BCP was reflected in the construction of bridges by the completion of the first prestressed bridges in Bulgaria.

The designing of the railway sections of Perperek-Kurdjali and the double track of the Sofia-Mezdra railway line enriched Bulgarian bridge-construction by the progressive systems of bridges with reinforcement girders of the Mayeür system.

The mastery of assembly operations with the use of the Sicet cantilever crane was an important moment in the introduction of progressive technologies. It was used in assembling the girders of the viaducts along the Pir-

dop-Rosino highway. The pitchfork new bridge system was applied here for the first time.

The Kremikovtsi Iron and Steel works and subsequently other plants of building structures, too, made a contribution to the production of pre-fabricated bridges. Beginning with single sectional bridges in the vicinity of the Kremikovtsi Works, the latter then drew the first nomenclature of sectional prefab bridge elements.

The civil engineers of Inzhstroi with the Sofia City People's Council have made a major contribution to the development of bridge- and trestle-construction in urban conditions. They have built the overpass over Serdika railway station, the Durvenitsa fly-over and the overpasses in Pencho Slaveikov blvd and Yavorov alley. The biggest urban trestle in Lenin blvd where the road to Sofia Airport forks out, was built using a special lifting method.

A specialized Moststroi (Bridge Construction) office was set up early in 1970 as a sub-division of the Putni Stroezhi (Road Construction) Economic Corporation, which is in charge of the construction of big bridges, ensuring the necessary traffic capacity of the up-to-date transport communications.

The Moststroi is perpetuating the fine traditions of its predecessors. It fulfilled ahead of schedule the Sixth Five-year Plan in all indicators and has deservedly been awarded the Red Banner of Labour Order.

The plan for the first two years of the Seventh Five-year Plan period was also fulfilled ahead of schedule as a tribute to the 60th anniversary of the Great October Socialist Revolution.

The workforce has also been awarded the two jubilee banners of the National Transport Complex – 30th Anniversary of September 9, 1944 and 60th Anniversary of the Great October Socialist Revolution – both symbols of acknowledgement and inspirers for still greater successes in bridge-construction.

More than 350 people, a whole constellation of designers and builders of bridges, have been distinguished by the state with orders and medals for the fulfilment of the construction targets ahead of schedule and for the excellent quality of the completed projects.

A source of national pride are the new bridges at Pissanets, Hristo Milevo, Kroupnik-Blagoevgrad, the bridges spanning the Rossitsa River in Sevlievo and the Yantra River in Veliko Turnovo, the bridges built in Plovdiv, Bourgas, Haskovo, Pazardjik, over Georgi Traikov Dam, Karaoulakata near Sofia and many others. The Asparoukh Bridge over the Bay of Varna stands out prominently among these bridges. In it the experience and daring of science and practice have been focussed.

● *Стояновв мост -- Pogonume*

● *Стояновв мост — Рогоны*

● *Die Stojan-Brücke in den Rhodopen*

● *Stoyanov bridge, the Rhodopes*

The application of the method of climbing shuttering in the construction of piers, the feeding of concrete at great heights using concrete pumps, the assembly of 120-ton elements with the assistance of cantilever cranes are achievements which make Bulgaria on a par with the technologically advanced countries. And the successful sinking of piles at a depth of up to 53.80 m is a rare achievement in world practice.

In its designing solution and technical execution the steel structure of the Asparoukh Bridge is unique in this country ranking among the best examples of this kind in the world. The construction site of the Asparoukh Bridge was a genuine school of patriotism, of steeling of the designers and builders of bridges, a responsible test of the depth and breadth of their technical knowledge and creative maturity.

The Bulgarian theory and practice of bridge-construction accomplished within 10 to 15 years what the advanced countries have accomplished over a whole century.

The high assessment which Comrade Todor Zhivkov made of the work of designers and builders of bridges in his speech at the inauguration ceremony of the Asparoukh Bridge is an honour for them. He said: 'The descendants and heirs of the master-builder Kolyo Ficheto, who about 100 years ago built the famous bridge spanning the Yantra River at the town of Byala, far from discrediting him, have taken this ancient noble trade to the highest summits.'

Motorways have become a tangible necessity determined not only by the development of Bulgarian automobile transport, but also by the country's geographical location and its development as a centre of international tourism.

The construction of a network of motorways with a total length of 1,016 km was launched under the Sixth Five-year Plan.

This network includes three basic directions.

– The Thrace motorway linking Sofia and Bourgas and passing via South Bulgaria;

– The Hemus motorway between Sofia and Varna via North Bulgaria;

– The Cherno More (Black Sea) motorway linking Varna and Bourgas.

The Seventh Five-year Plan envisages the completion of the Sofia-Pazardjik lap of the Thrace motorway, the Sofia-Pravets Inns and Varna Devnya laps of the Hemus motorway and the Varna-Prisseltsi section of the Cherno More motorway.

Bridges of a total length of 7,250 m will be built in sections of the Hemus motorway and of 3,594 m along the Thrace motorway.

A giant bridge, the highest in Bulgaria (128 m) will be built along the Hemus motorway, which, together with the Asparoukh Bridge will become an impressive monument reminding the coming generations about the eventful, constructive age of our socialist build-up.

The designers and builders of bridges, worthy successors of Kolyo Ficheto, have amply deserved this with their magnificent labour exploits. They appreciate the trust of the Party and are ready to carry out with enthusiasm and willingness the stupendous programme for building the bridges along the Bulgarian motorways which will be the creations of the talent and labour heroism of the Bulgarian designers and builders of bridges.


КОЛЮ ФИЧЕТО
1800 1881

● *Паметник на К. Фичето*

● *Памятник К. Фичеву*

● *Denkmal für Koljo Fitscheto*

● *The monument to K.Ficheto*

● *Стар мост на К. Фичето -- Бяла*

● *Старый мост К. Фичева — г. Бяла*

● *Die Brücke von Koljo Fitscheto in Bjala*

● *An old bridge built by K.Ficheto, Byala*

● *Нов мост -- Бяла*
● *Новый мост — г. Бяла*
● *Neur Brücke in Bjala*
● *A new bridge, Byala*

● МОСТ НА ДРУЖБАТА НАД Р. ДУНАВ

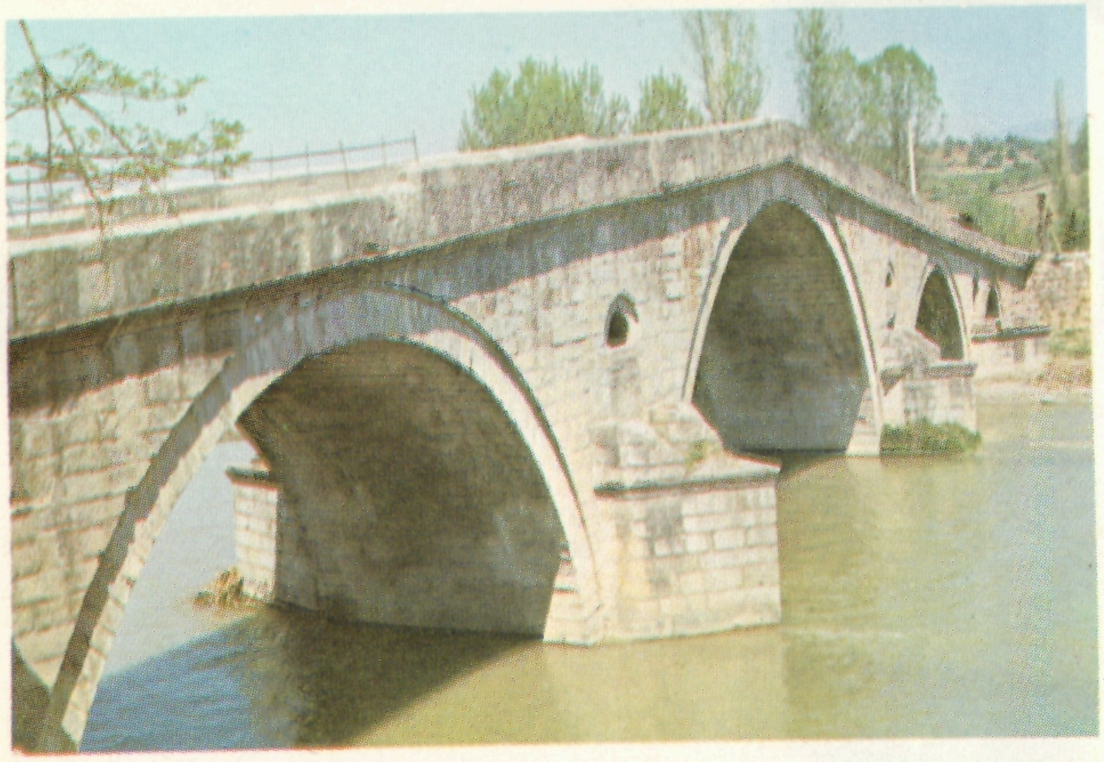
От 1952 год. м. октомври до 1954 год. м. юни беше построен Моста на дружбата. Това е първия интернационален строеж от голям мащаб, където съветските, български и румънски специалисти с ентусиазъм и вещина дадоха своя труд в името на социалистическото братство.

● Мост Дружбы над рекой Дунай. Строительство моста продолжалось с октября 1952 года по июнь 1954 года. Это — первый интернациональный объект крупного масштаба, на котором советские, болгарские и румынские специалисты с энтузиазмом трудились во имя социалистического братства.

● Die Brücke der Freundschaft über die Donau wurde von Oktober 1952 bis Juni 1954 gebaut. Sie ist das erste internationale Bauvorhaben von großem Maßstab, bei dem sowjetische, bulgarische und rumänische Fachleute begeistert all ihr Wissen und Können im Namen der sozialistischen Brüderlichkeit aufboten.

● THE BRIDGE OF FRIENDSHIP SPANNING THE DANUBE

The Bridge of Friendship was built between October 1952 and June 1954. This was the first international project of large scale in which Soviet, Bulgarian and Romanian specialists took part. They willingly made their highly skilled contribution to its completion in the name of socialist fraternity.

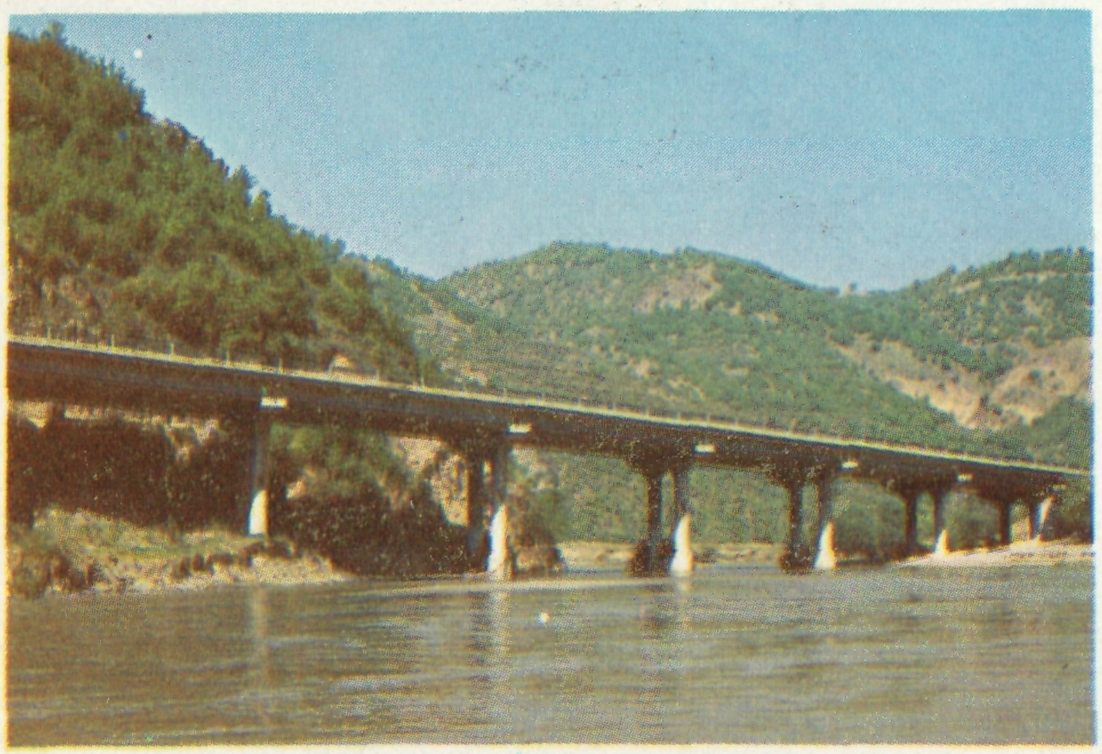


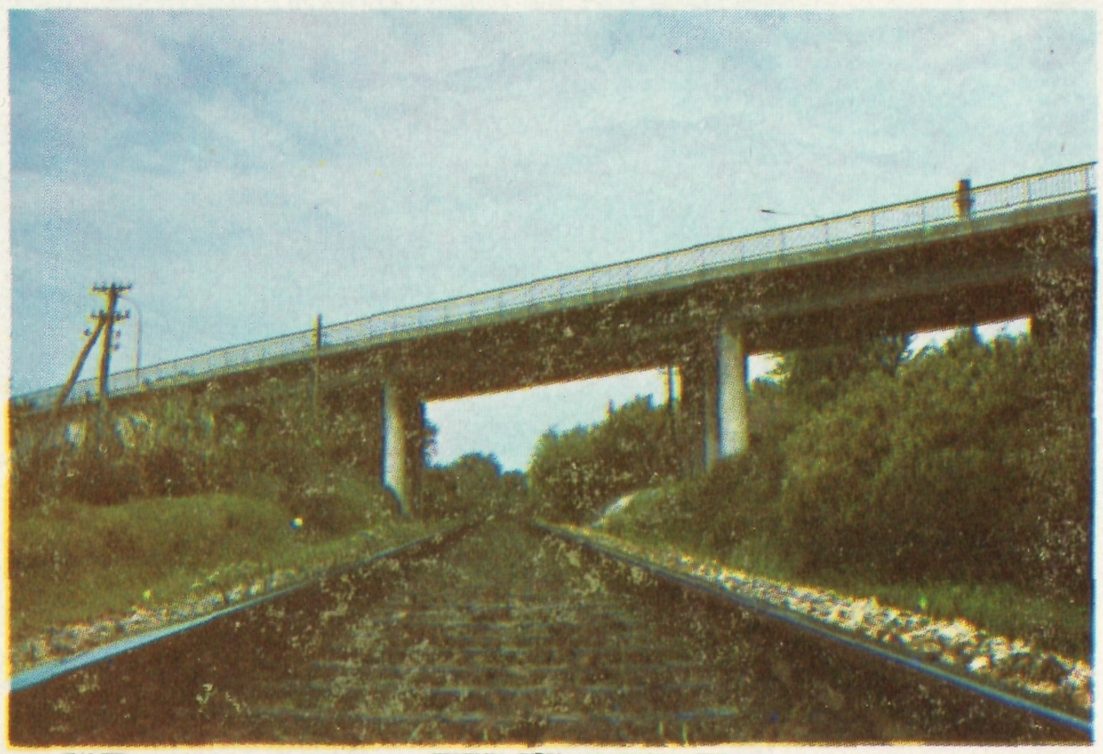
● *Мост по пътя Пирдоп -- Розино*

● *Мост на дороге Пирдоп — Розино*

● *Brücke an der Straße Pirdop-Rosino*

● *A bridge along the Pirdop-Rosino road*





● *Мост по пътя Пирдоп -- Розино*

● *Мост на дороге Пирдоп — Розино*

● *Brücke an der Straße Pirdop-Rosino*

● *A bridge along the Pirdop-Rosino road*

● МОСТ НА ОКОЛОВРЪСТНИЯ ПЪТ – СЕВЛИЕВО

Изграден е над река Росица край Севлиево по пътя София–Варна. Връхната конструкция е изпълнена с предварително напрегнати 21-метрови греди.

● МОСТ НА КОЛЬЦЕВОЙ ДОРОГЕ, ВЕДУЩЕЙ В СЕВЛИЕВО

Построен над рекой Росица близ Севлиево на шоссе Варна – София. Верхняя конструкция выполнена предварительно напряженными 21-метровыми балками.

● BRÜCKE AN DER RINGSTRASSE VON SEVLIEVO

Errichtet über der Rossiza bei Sevlievo an der Straße Sofia-Varna. Der Überbau besteht aus vorgespannten 21-Meter-Balken.

● THE BRIDGE ON THE RINGROAD – SEVLIEVO

Built to span the River Rossitsa at Sevlievo along the Sofia-Varna highway, its upper structure consists of prestressed 21 m long elements.

● МОСТЪТ НАД Р. РОСИЦА В СЕВЛИЕВО

Съществуващият мост е уширен с монолитна гредова конструкция. Фундирането е плоскостно.

● МОСТ НАД РЕКОЙ РОСИЦА В СЕВЛИЕВО

Существующий мост расширен с помощью монолитной свайной конструкции. Фундирование плоскостное.

● DIE ROSSIZABRÜCKE BEI SEVLIEVO

Die Brücke besteht aus einer Einfeldbalkenkonstruktion. Flachfundament

● THE BRIDGE SPANNINTHE RIVER ROSSITSA IN SEVLIEVO

The existicg bridge was brcadened by a monolithic girder structure.

● МОСТ НАД Р. МАРИЦА

Съоръжението премоства р. Марица по пътя за Чирпан. Фундиран е с изливни пилоти. Обща ширина — 10,50 м.

● МОСТ НАД РЕКОЙ МАРИЦА

Сооружение пересекает реку Марица по дороге, ведущей в Чирпан. Фундирован забитыми сваями. Общая ширина 10,50 м.

● MARIZABRÜCKE

Die Brücke überspannt die Mariza auf der Straße nach Tschirpan. Das Fundament besteht aus gegossenen Piloten. Gesamtbreite: 10,50 m.

● BRIDGE SPANNING THE MARITSA RIVER

The bridge spans the Maritsa River along the way to Chirpan. The foundation piles are concrete-cast and the bridge's total width is 10.50 m.

● НАДЛЕЗЪТ В ДРЯНОВО

Съоръжението е на пътя Дряново—Трявна. Долното строене е монолитно с плоскостно фундиране. Връхната конструкция е със сглобяеми греди. Габаритът на пътното платно е 7,5 м и два тротоара по 1,5 м. Надлезът е изграден в градската част и оформя архитектурно Дряново.

● ПУТЕПРОВОД В ДРЯНОВО

Сооружен на шоссе Дряново — Трявна. Нижнее строение монолитно с плоскостным фундированием. Верхняя конструкция из сборных балок. Габарит дорожного полотна — 7,5 м, тротуаров — по 1,5 м каждый. Путепровод построен в городской части и дополняет архитектурный облик города.

● DIE ÜBERFÜHRUNG IN DRJANOVO

An der Straße Drjanovo-Trjavna. Der Unterbau ist monolithisch und mit flachem Fundament. Der Überbau ist aus montierbaren Balken. Die Überführung hat eine 7,5 m breite Fahrbahn und zwei Bürgersteige von je 1,5 m. Sie prägt das Antlitz Drjanovos.

● THE DRYANOVO OVERPASS

It has been built along the dryanovo-Tryavna highway, with a monolithic plane foundation. The top structure is made of segmental elements. The road way is 7.5 m wide with two pavements of 1.5 m each. The overpass is located in the town itself and is a characteristic feature of the arctitectural layout.

● МОСТОВЕ КРУПНИК – БЛАГОЕВГРАД

Премостват река Струма по главния път София–Атина. Фундирани с изливни пилоти.

● МОСТЫ КРУПНИК – БЛАГОЕВГРАД

Расположен над рекой Струма на главной автомагистрали София – Афины. Фундирован набивными сваями.

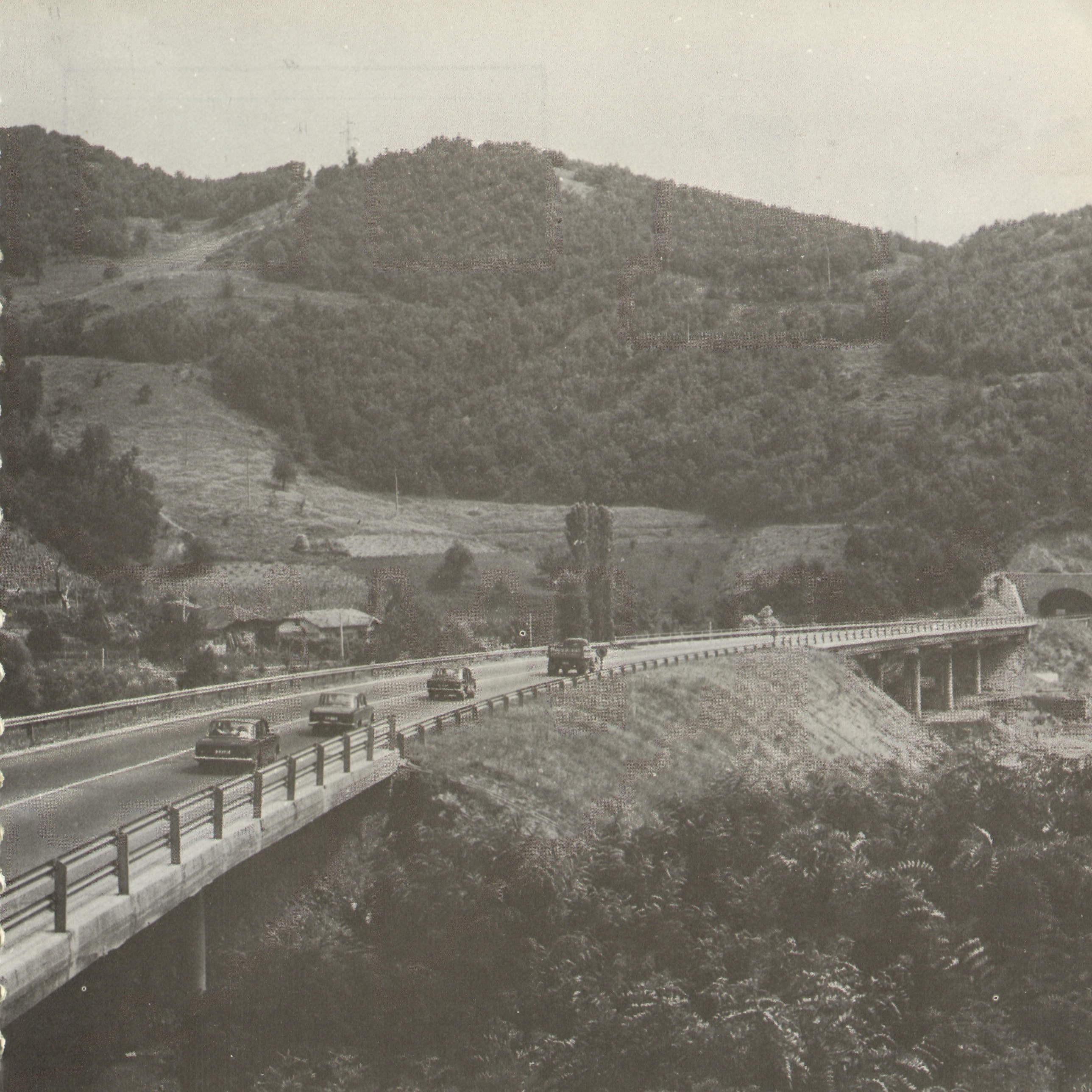
● DIE BRÜCKEN KRUPNIK – BLAGOEVGRAD

Sie überspannen die Struma auf der Fernverkehrsstraße Sofia-Athen. Fundament mit gegossenen Piloten.

● KROUPNIK BRIDGES, BLAGOEVGRAD

They span the River Strouma along the Sofia-Athens trunk road and their foundation piles are concrete-cast.

● *Мост Крупник -- Благоевград*
● *Мост Крупник — Благоевград*
● *Krupnik-Brücke, Blagoevgrad*
● *Kroupnik bridge, Blagoevgrad*



● МОСТ НАД Р. МАРИЦА КРАЙ ПЛОВДИВ

Връхната конструкция е от напрегнати греди — система „Фрейсине". Габаритът на пътното платно е 9 м, ограничен от два тротоара с ширина по 0,75 м.

● МОСТ НАД РЕКОЙ МАРИЦА БЛИЗ ПЛОВДИВА

Верхняя конструкция сделана из напряженных балок системы „Фрейсине".

Габарит дорожного полотна 9 м, ограниченного двумя тротуарами шириной 0,75 м.

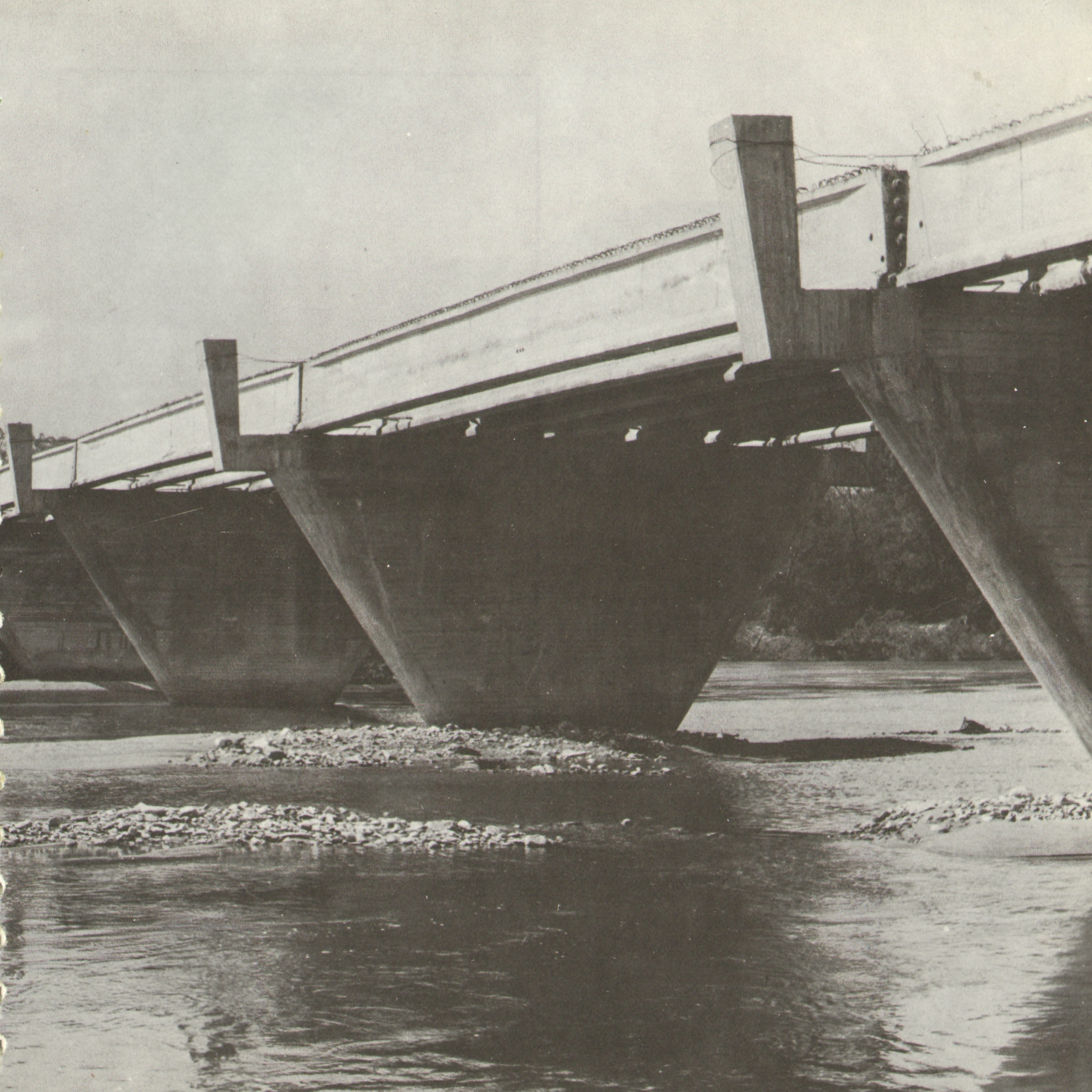
● MARIZABRÜCKE BEI PLOVDIV

De Überbau besteht aus vorgespannten Balken System „Freysine"

Die Fahrbahn ist 9 m breit und wird von 0,75 m breiten Bürgersteigen gesäumt.

● A BRIDGE SPANNING THE MARITSA RIVER NEAR PLOVDIV

The top was assembled of prestressed prefabricated elements. The roadway is 9 m wide with two pavements of 0.75 m each.



● *Мост Габровица*
● *Мост Габровица*
● *Gabroviza-Brücke*
● *Gabrovitsa bridge*


TRANSKOP

● НАДЛЕЗ „СТОРГОЗИЯ“ В ПЛЕВЕН

Надлезът е в крива и контракрива. Дължината му е 110 м, габарита на пътното платно е 10,50 м.

Съоръжението свързва жилищния квартал „Сторгозия“ с центъра на града.

● ПУТЕПРОВОД „СТОРГОЗИЯ“ В ПЛЕВЕНЕ

Длина путепровода 110 м, габарит дорожного полотна 10,5 метра.

Сооружение связывает жилой микрорайон „Сторгозия“ с центром города.

● DIE ÜBERFÜHRUNG „STORGOSIA“ IN PLEVEN

Die Überführung ist in einer Krümmung und Gegenkrümmung. Sie ist 110 m lang, die Fahrbahn hat eine Breite von 10,50 m.

Die Anlage verbindet das Stadtviertel „Storgosia“ mit dem Stadtzentrum.

● THE STORGOZIA OVERPASS IN PLEVEN

The overpass is in the shape of an arch and a reversed arch, 110 m long with roadway width of 10.50m.

This facility connects the Storgozia residential area with the town centre.

● МОСТ „ПИСАНЕЦ"

Виадуктът е изграден край с. Писанец. Премоства дълбокото дере на река Черни Лом по ГП 6. Колоните са изпълнени чрез пълзящ кофраж система „Камертон". Гредите са монтирани с монтажна кран-ферма „Сичет".

Габарита на съоръжението е общо 13 м, от които пътното платно 10,5 м.

Чрез построяването на моста Писанец се избягнаха опасните завои в селото.

В архитектурно отношение виадуктът напълно хармонира с околната среда и е най-високият в Родината.

● МОСТ ПИСАНЕЦ

Виадук построен близ с. Писанец. Переброшен через глубокое ущелье, по которому протекает река Черни-Лом, на шоссе ГП 6. Колонны построены методом скользящей опалубки системы „Камертон". Балки монтированы монтажным краном-фермой „Сичет".

Общий габарит сооружения 13 метров, 10,5 м которого занимает дорожное полотно.

Благодаря построению моста Писанец удалось избежать опасные повороты в селе.

В архитектурном отношении виадук полностью гармонирует с окружающей средой и является высочайшим в Болгарии.

● THE PISSANETS BRIDGE

The viaduct was built near the village of Pissanets to span the deep gorge of the Cherni Lom River along the GP 6 road. The piers were built by climbing shuttering using the pitchfork system. The girders were assembled using the Sicet cantilever crane.

The bridge is 13 m wide, with a roadway of 10.5 m.

The dangerous turns in the village are avoided with the construction of the Pissanets bridge.

Architecturally, the viaduct is in full harmony with the environment. It is the highest in Bulgaria.

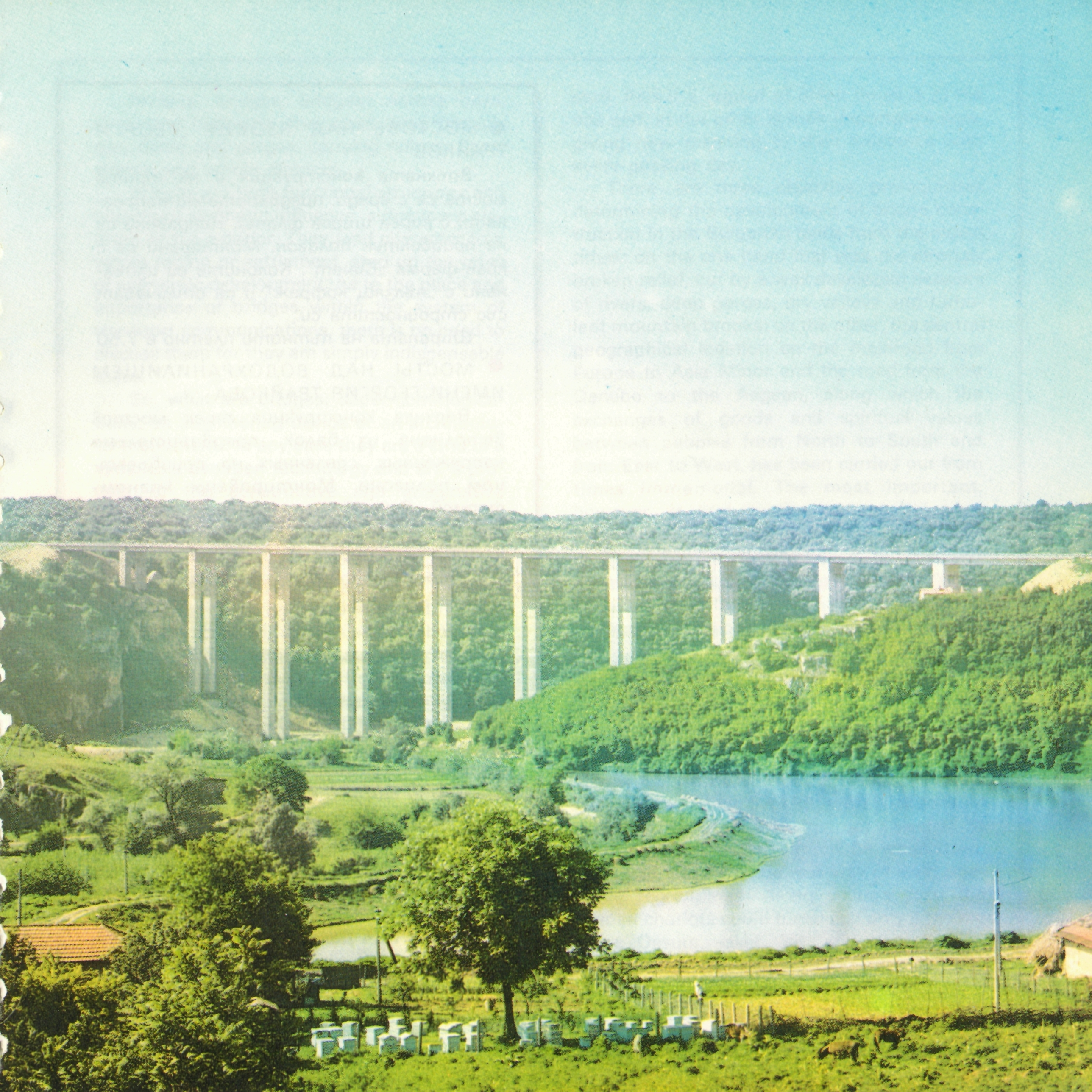
● DIE PISSANEZBRÜCKE

Der Viadukt ist in der Nähe des Dorfes Pissanez errichtet und überbrückt die tiefe Schlucht des Tscherni Lom an der Fernverkehrsstraße 6. Die Säulen sind im Gleitschalensystem "Kammerton" ausgeführt und die Balken mit dem Fachwerkkran "Siccet" montiert.

Abmessungen der Anlage: 13 m, davon 10,5 Fahrbahnbreite.

Durch die Pissanez-Brücke führt die Fernverkehrsstraße am Dorf vorbei.

In architektonischer Hinsicht fügt sich der Viadukt harmonisch in die Umgebung ein. Er ist der höchste in Bulgarien.



● МОСТОВЕ НАД ЯЗОВИР „ГЕОРГИ ТРАЙКОВ"

Връхната конструкция и на трите моста са с греди, предварително напрегнати с горен широк фланш. Направени са на приобектен полигон. Монтирани са с кран-ферма „Сичет". Колоните са изпълнени с „пълзящ кофраж" и се отличават със стройността си.

Ширината на пътното платно е 7,50

● МОСТЫ НАД ВОДОХРАНИЛИЩЕМ ИМЕНИ ГЕОРГИЯ ТРАЙКОВА

Верхняя конструкция трех мостов выполнена из балок, предварительно напряженных, сделанных на приобъектном полигоне. Монтированы краном-фермой „Сичет". Колонны выполнены методом скользящей опалубки и отличаются стройностью.

Ширина дорожного полотна 7,50 м.

● BRÜCKEN ÜBER DIE GEORGI–TRAIKOV–TALSPERRE

Den Überbau aller drei Brücken bildeen vorgespannte Balken mit breiter oberer Gurtplatte. Sie werden nahe der Baustelle vorgefertigt und mit dem Fachwerkkran „Siccet" aufgezogen. Die Säulen sind in Gleitschalung ausgeführt und besonders schlank.

Die Fahrbahn ist 7,50 m breit.

● THE BRIDGES OVER THE GEORGI TRAIKOV DAM

The top structures of the three bridges are of prestressed elements made on the site and assembled with the help of a Sicet cantilever crane. The slender piers were built by climbing shuttering.

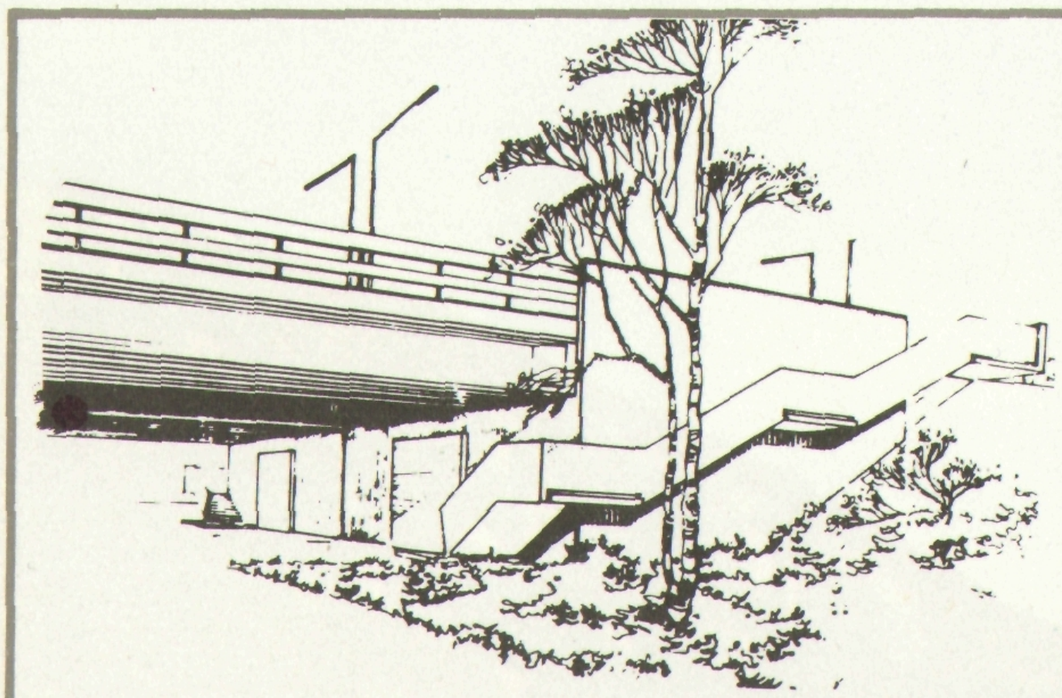
Te roads are 7.50 m wide.

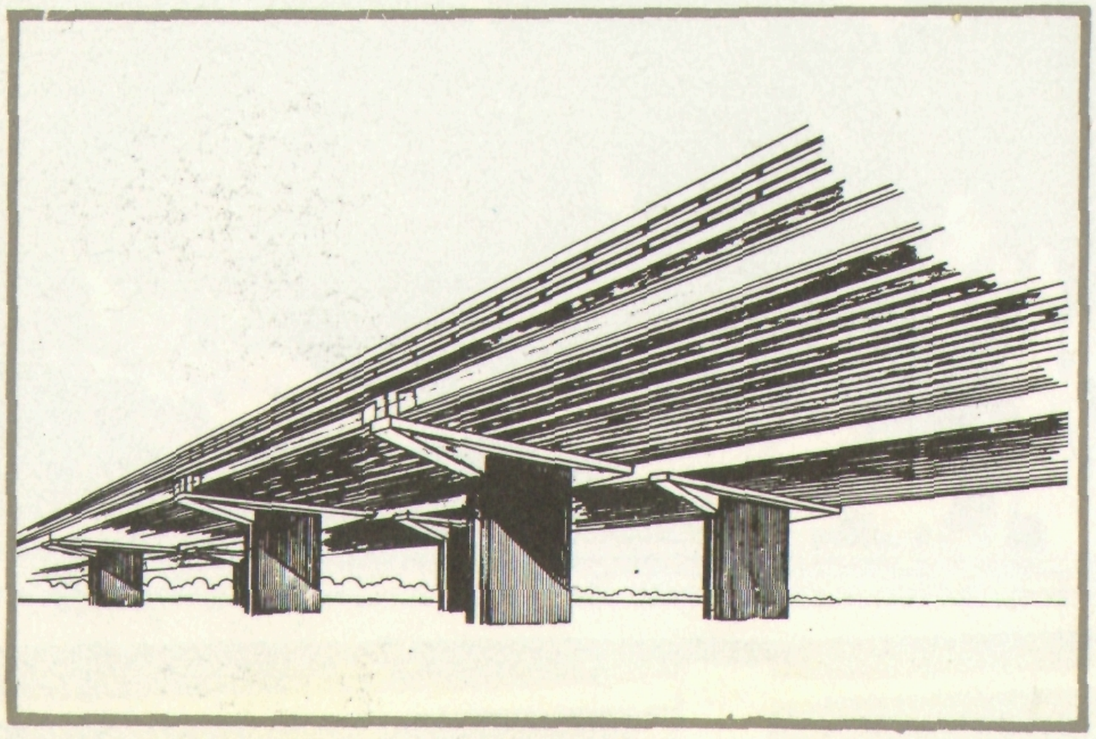
● *Мост над язовир Г. Трайков*

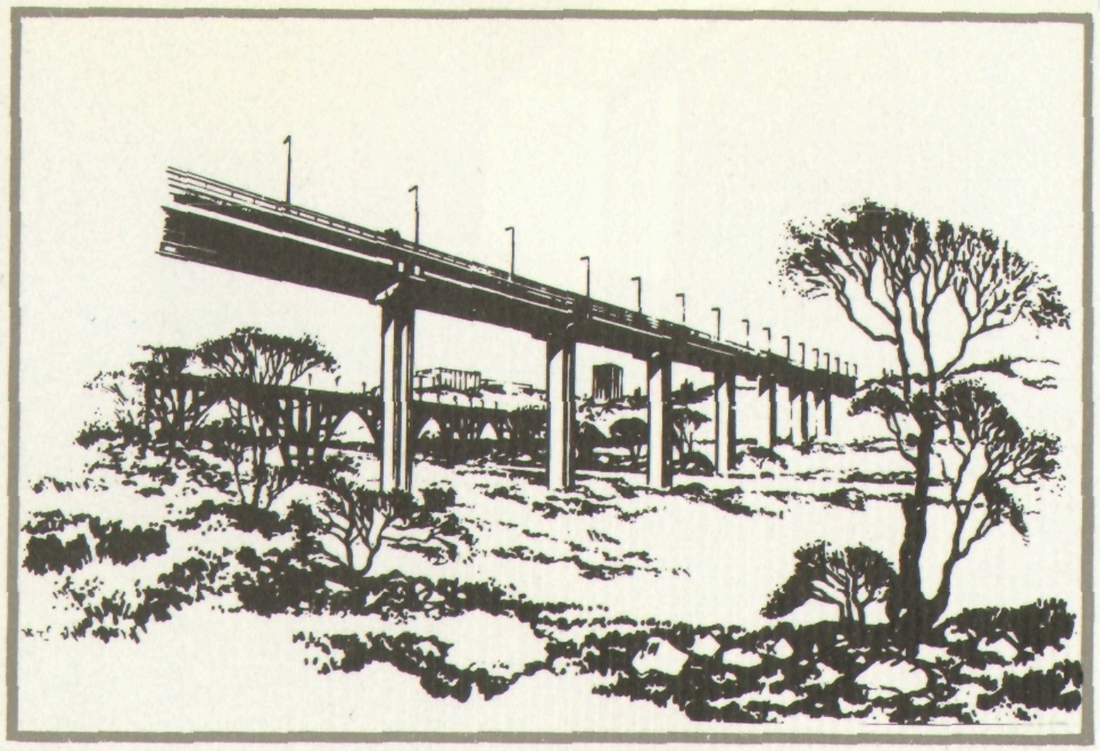
● *Мост над Водохранилищем имени Г. Трайкова*

● *Brücke über die Georgi-Traikov-Talsperre*

● *A bridge across Georgi Traikov Dam*







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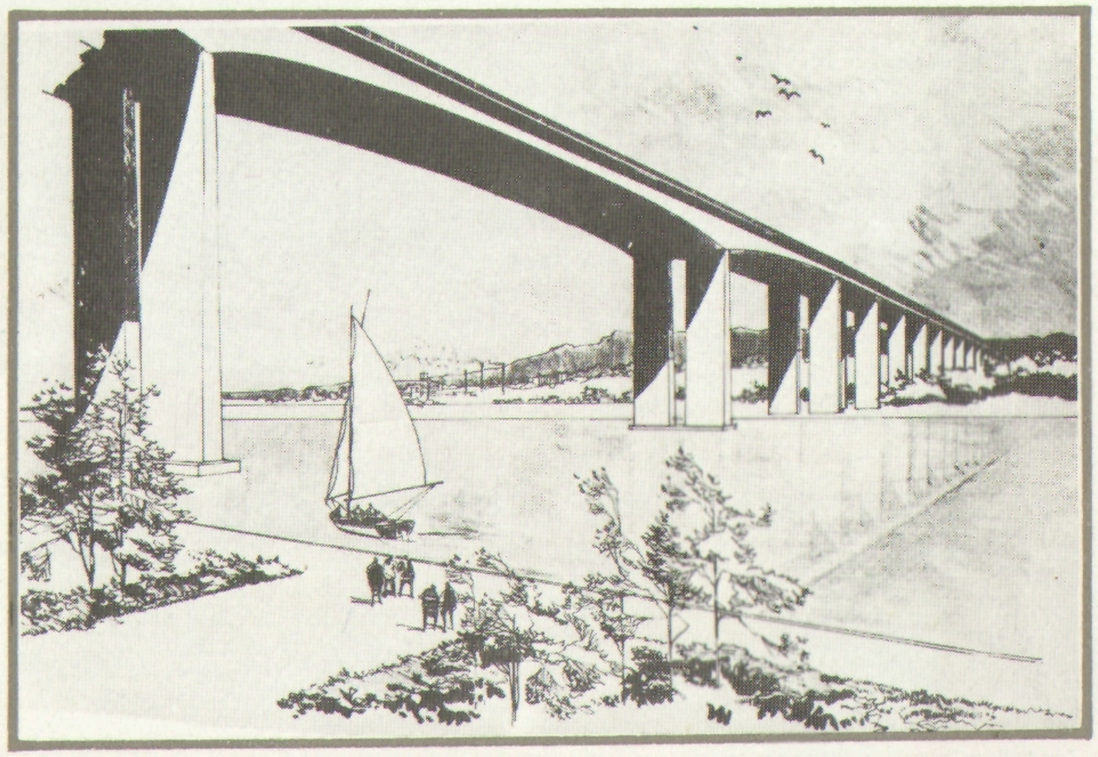
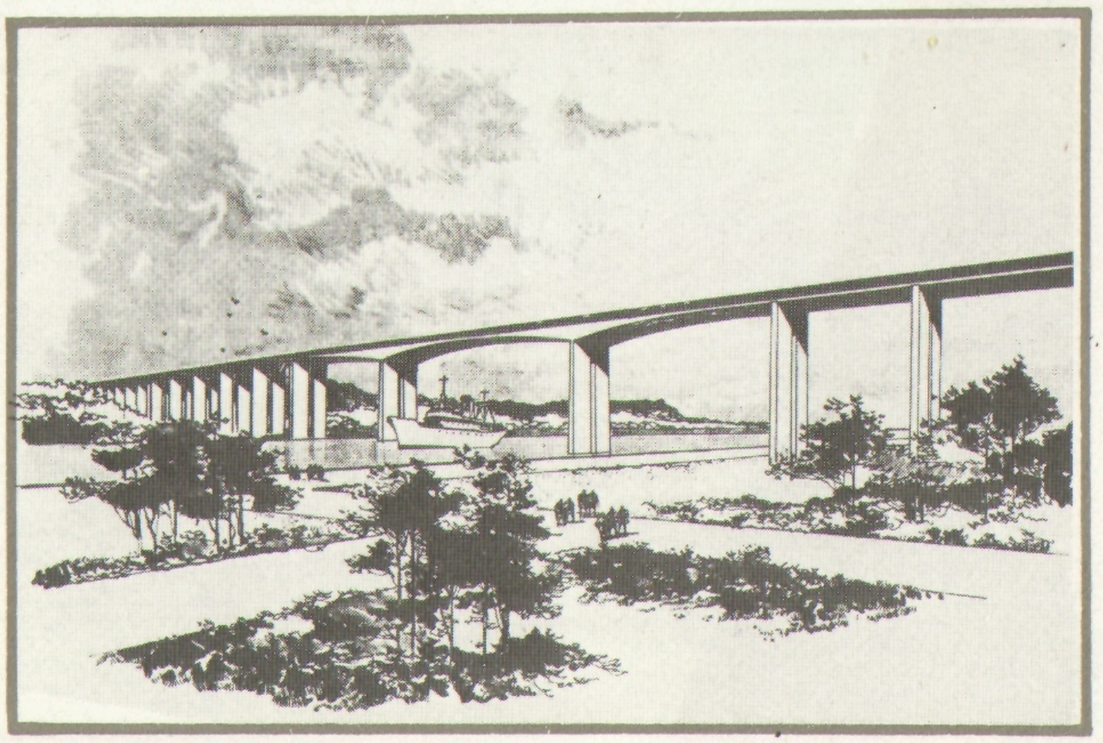
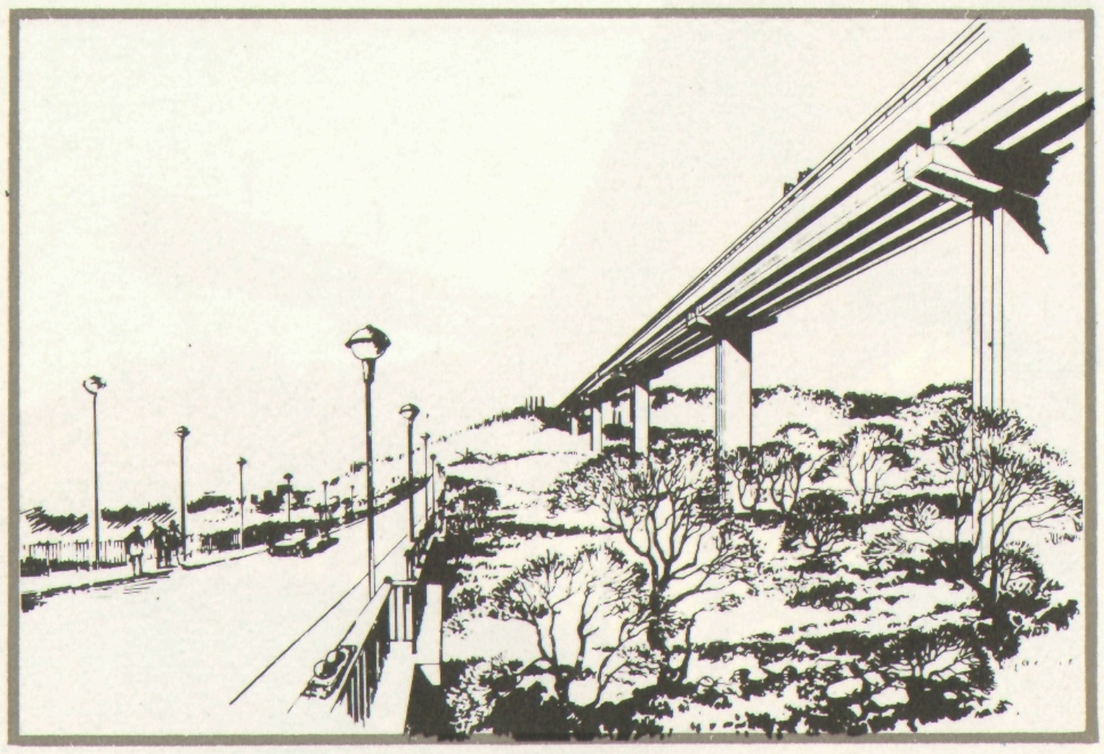






● *Мост над язовир Г. Трайков*

● *Мост над Водохранилищем имени Г. Трайкова*

● *Brücke über die Georgi-Traikov-Talsperre*

● *A bridge across Georgi Traikov Dam*

- Направа на мостови греди
- Производство мостовых балок
- Vorfertigung von Brückenbalken
- The production of bridge girders

DIE ASPARUCH–BRÜCKE IN VARNA

Mit der Asparuch-Brücke wurde ein reibungsloser Verkehr auf der Autobahn über dem Schiffahrtskanal „Esero" gesichert.

Sie ist die größte Verkehrsanlage in Bulgarien, die sich aber auch mit den größten Bauten dieser Art in den fortgeschrittenen Ländern messen kann.

Das Dundament der Asparuch-Brücke wird zum größten Teil von Piloten gebildet. Diese Piloten aneinander gelegt ergeben eine Länge von 25 000 m. Sie reichen bis in 53 m Tiefe. Ein so tief reichendes Fundament ist für Bulgarien eine technische Leistung und selbst in der Weltpraxis selten anzutreffen.

Die Säulen für die Asparuch-Brücke sind in Gleitschalung ausgeführt und bis zu 51 m hoch.

Der mittlere Teil der Brücke, der Teil über dem Kanal, besteht aus einer Metallkonstruktion – eine orthotrope Platte mit zwei Öffnungen zu 80 m und einer mittleren Öffnung zu 160 m.

Diese Stahlkonstruktion kennt in unserem Land nicht ihresgleichen.

Die Brücke hat eine Gesamtbreite von 25 m, zwei Fahrbahnen zu 10,5 m, zwei Bürgersteige zu 1,5 m und einen 1 m breiten Mittelstreifen.

Die Investitionen für die Asparuch-Brücke sind sehr effektiv und fließen in weniger als drei Jahren zurück.

THE ASPAROUKH BRIDGE IN VARNA

The completion of the Asparoukh Bridge has ensured the unobstructed passage of the motorway over the Ezero navigable canal.

The Asparoukh Bridge is the biggest road communication facility in Bulgaria and by its scale is comparable to the biggest bridges built in the industrialized countries.

The foundations of the Asparoukh Bridge consist largely of piles made on the site out of concrete. The total length of the concrete piles is 25,000 m and the deepest sinking of the foundations is 53 m. The sinking of piles at such a depth is a technical achievement of Bulgaria and is rare in world practice.

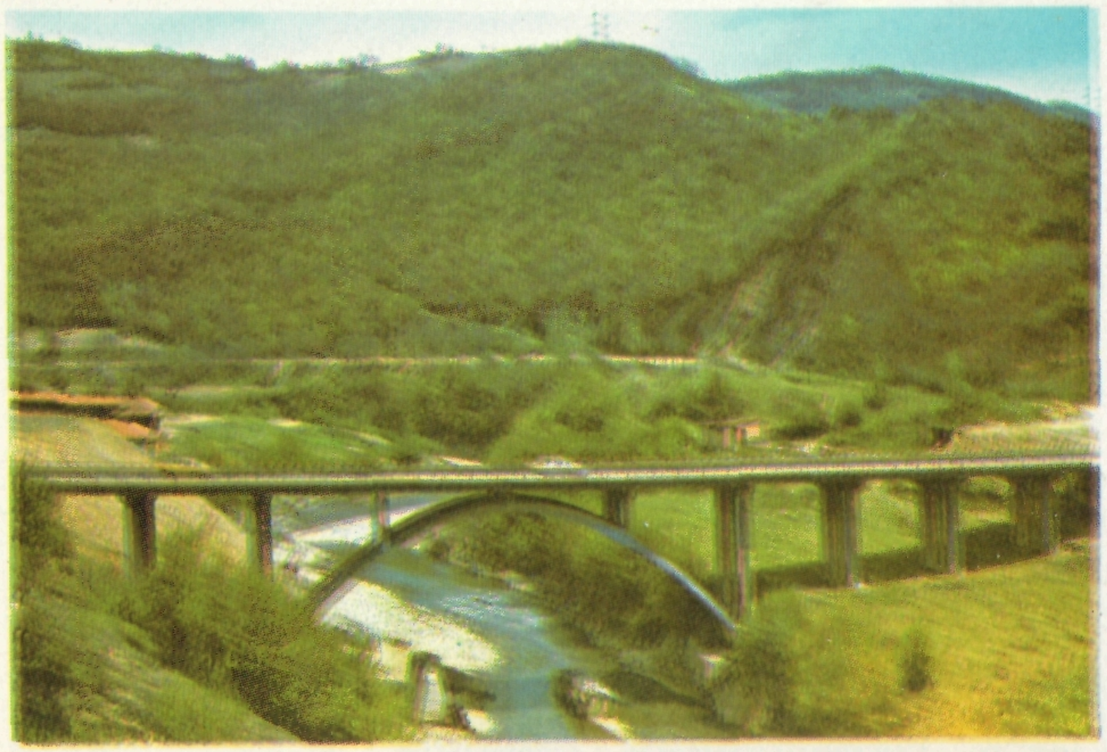
The columns of the trestle parts of the Asparoukh Bridge were built by climbing shuttering and are up to 51 m high.

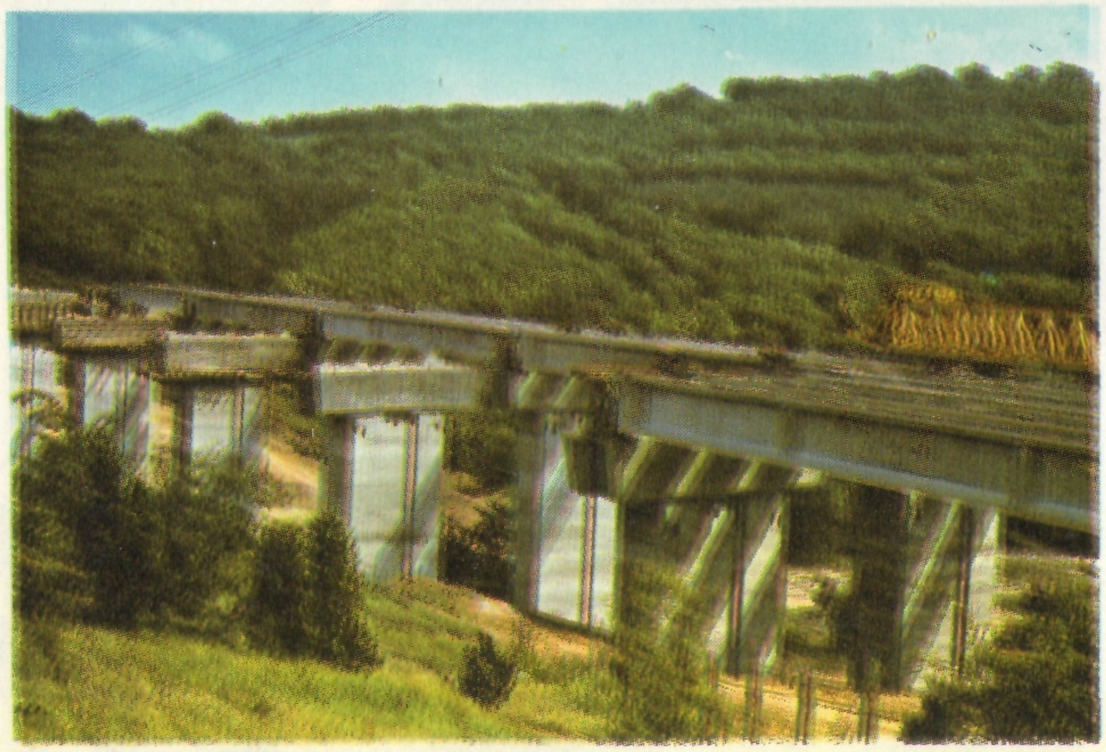
The central part of the bridge spanning the navigable canal is a metal structure, an orthotropic plate with two openings of 80 m each and the central opening of 160 m.

The steel construction is unique in Bulgaria in its openings and designing solution.

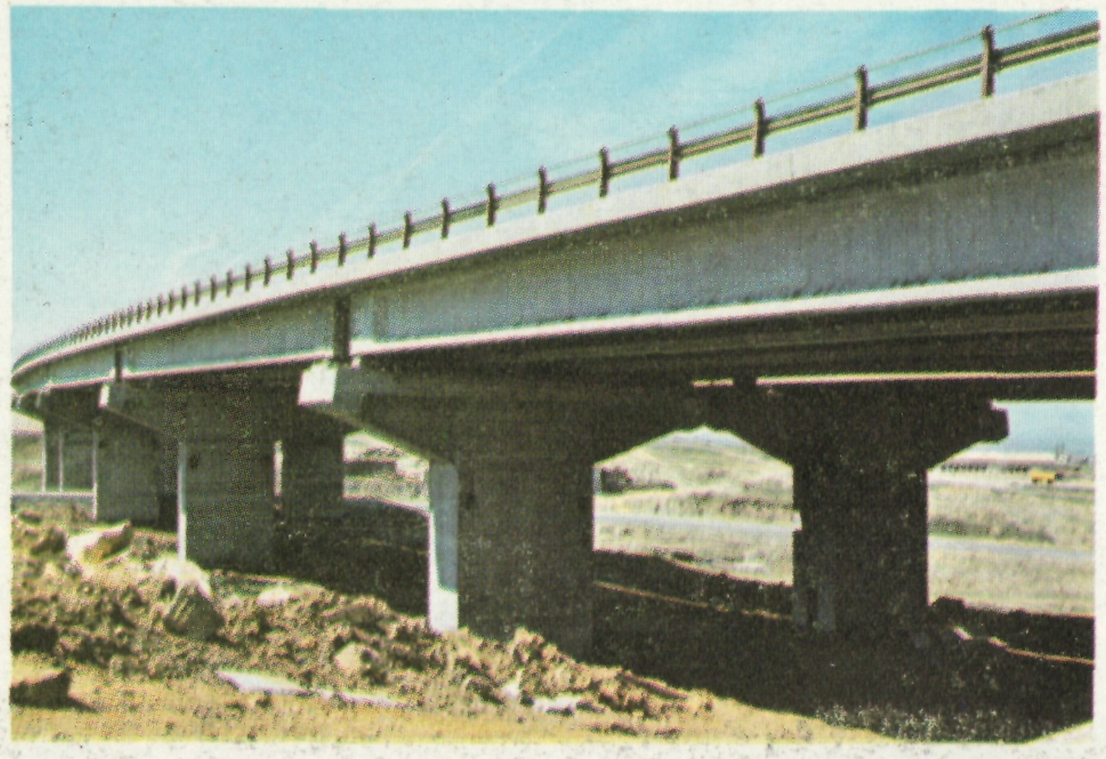
The bridge has two roadways of 10.5 m each, two pavements of 1.5 m each and a strip of 1 m between the two roadways, or a total width of 25 m.

The Asparoukh Bridge is a highly effective investment because it will be paid off in less than three years.





● *Аспарухов мост*
● *Аспарухов мост*
● *Die Asparuch-Brücke*
● *Asparoukh Bridge*



- *Наливане бетон с бетонпушка*
- *Заливка бетона*
- *Einbringen von Pumpbeton*
- *Pouring of concrete with a concrete gun*

● НАДЛЕЗ В БУРГАС

Надлезът е фундиран върху стоманобетонови пилоти. Горното строене е изпълнено от предварително напрегнати греди, произведени на приобектен полигон и монтирани с кранферма „Сичет".

Общата ширина на надлеза е 21,30 м, от която две пътни платна по 8 м и четири пешеходни тротоара: 2 по 1,75 м и две от 0,90 м.

● ПУТЕПРОВОД В БУРГАСЕ

Путепровод фундирован на сталебетонные сваи. Верхнее строение состоит из предварительно напряженных балок, произведенных на приобъектном полигоне и монтированных краном-фермой „Сичет".

Общая ширина путепровода 21,30 м, два дорожных полотна по 8 м и четыре пешеходных тротуара: два по 1,75 м и два по 0,90 м.

● ÜBERFÜHRUNG IN BURGAS

Die Überführung ruht auf Stahlbetonpiloten. Der Überbau besteht aus vorgespannten Balken, die nahe der Baustelle vorgefertigt und mittels Siccet-Kran montiert werden.

Die Überführung ist 21,30 m breit, ist in zwei Fahrbahnen zu 8 m und vier Bürgersteigen – zwei zu 1,75 m und zwei zu 0,90 m unterteilt.

● BOURGAS OVERPASS

Its foundations are steel-concrete piles and the top is made of prestressed elements produced on the site and assembled with the help of a Sicet cantilever crane.

The total width of the overpass is 21.30 m, including two traffic roadways of 8 m each and four pavements: 2 with a width of 1.75 m and two of 0.90 m.

BRIDGES IN VELIKO TURNOVO

After the completion of the underground highway in Veliko Turnovo, the intensive automobile traffic was led away from the city centre.

The highway crosses the River Yantra at four places and passes via tunnels under the rock formations Velchova Zavera and Borouna. Four big bridges were built spanning the river.

The motorway is 17 m wide with two pavements of 1.5 m each.

Two of the bridges are arched – one with three spans and the other with a spandrel-braced arch. These two beautiful bridges are in full harmony with the architectural layout of the old city of Veliko Turnovo,

The first and the last bridge have sectional top structures and were built out of prestressed elements produced on the site and assembled with the help of a Sicet cantilever crane.

● *Мост над р. Янтра -- В. Търново*

● *Мост над рекой Янтра – Велико–Тырново*

● *Jantrabrücke, Veliko Tarnovo*

● *A bridge spanning the River Yantra, Veliko Turnovo*

● *Виадукт по автомагистрала Тракия*
● *Виадук на автомагистрали „Тракия“*
● *Viadukt an der Autobahn „Thrakia“*
● *A viaduct of the Thrace motorway*

● МОСТ „ДИМИТЪР БЛАГОЕВ“ НАД Р. МАРИЦА

Мостът „Д. Благоев“ е крупно пътно съоръжение. Преминава над двата ръкава на р. Марица и острова по продължението на бул. „Д. Благоев“ в зоната на панаира /панаирното градче/.

Връхната конструкция е сглобяема. Гредите са 21 м — предварително напрегнати. Ширината на съоръжението е 32 м.

● МОСТ ИМЕНИ ДИМИТРА БЛАГОЕВА НАД РЕКОЙ МАРИЦА

Мост имени Д. Благоева — крупнейшее дорожное сооружение. Он проходит над двумя рукавами реки Марица и островом — продолжением бульвара имени Д. Благоева в зоне ярмарки /ярмарочного городка/.

Верхняя конструкция сборная. Балки 21-метровые, предварительно напряженные. Ширина сооружения 32 м.

● DIE DIMITER–BLAGOEV–BRÜCKE IN PLOVDIV

Die Dimiter-Blagoev–Brücke führt über die beiden Arme der Mariza und über die Insel am Boulevard „Dimiter Blagoev“ ins Messegelände.

Der Überbau ist montiert. Die 21 m langen Balken sind vorgespannt. Die Brücke ist 32 m breit.

● THE DIMITER BLAGOEV BRIDGE SPANNING THE MARITSA RIVER

This bridge is a big transport facility spanning the two arms of the Maritsa River and passing over the island along the Dimiter Blagoev blvd near the Fair Grounds.

The top structure is made of prestressed prefab elements 21 m long. The bridge is 32 m wide.

- *Пълзене колони*
- *Ползущие колонны*
- *Gleitschalung*
- *Climbing shuttering piers*

● *Надлез по автомагистрала Хемус*

● *Путепровод на автомагистрали „Хемус"*

● *Überführung an der Autobahn „Haemus"*

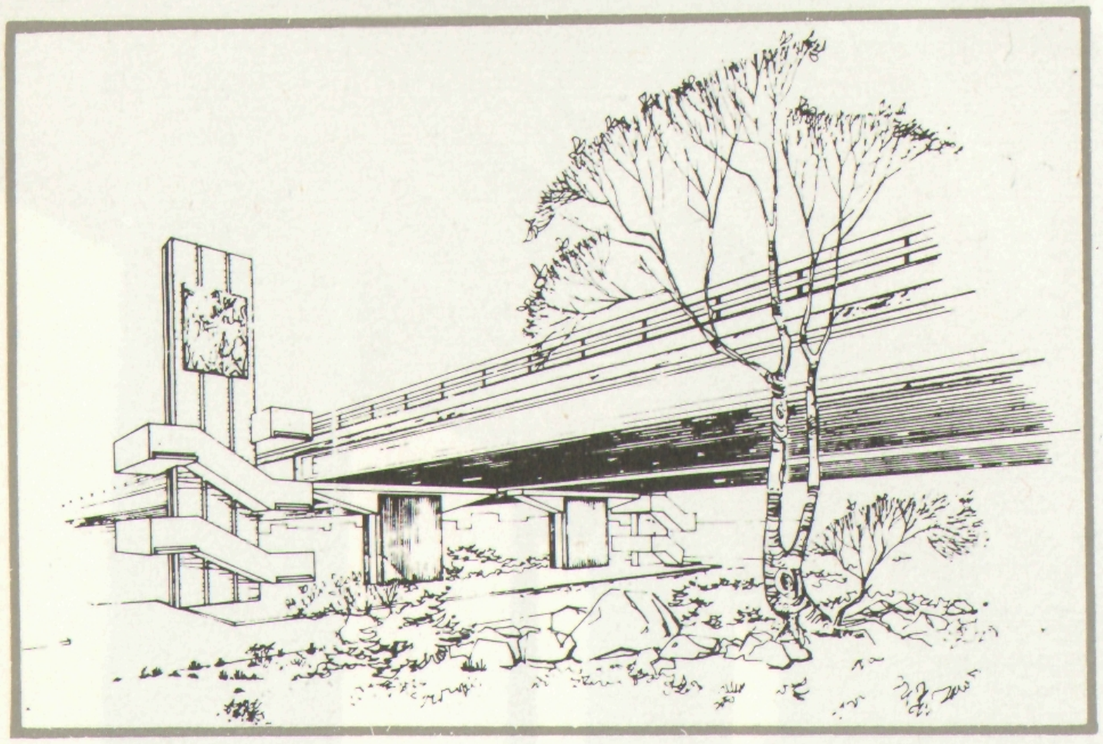
● *An overpass of the Hemus motorway*

● *Надлез по автомагистрала Хемус*

● *Путепровод на автомагистрали „Хемус"*

● *Überführung an der Autobahn „Haemus"*

● *An overpass of the Hemus motorway*



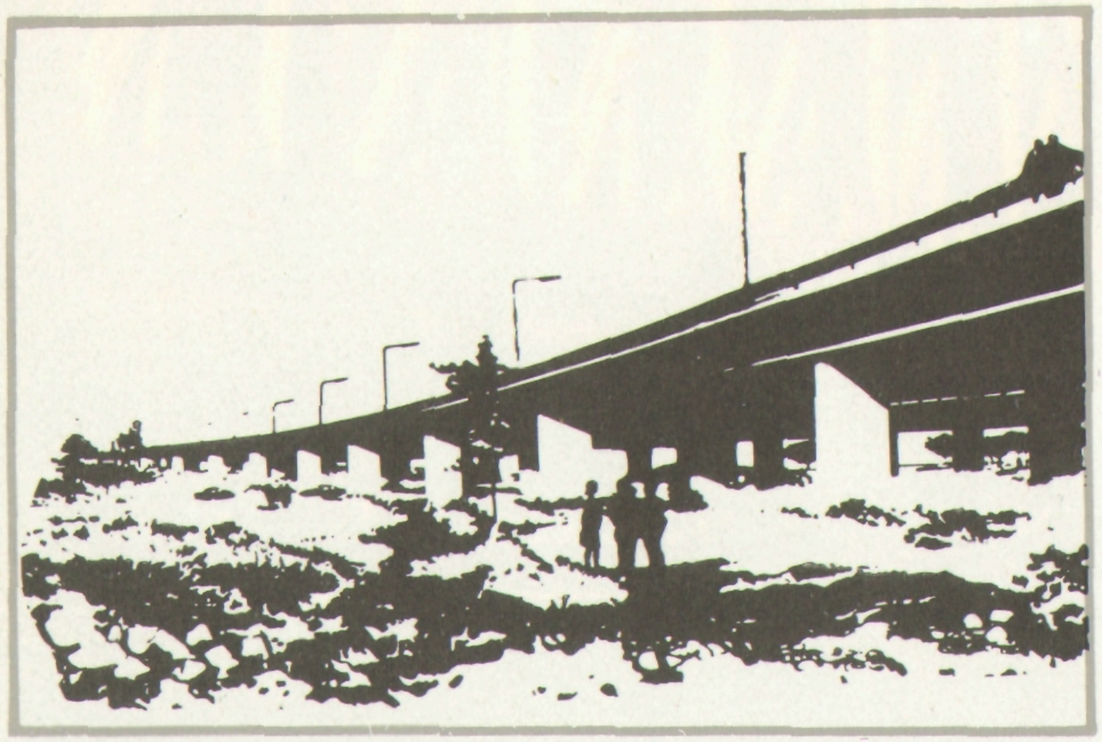
- *Демонтаж с хеликоптер*
- *Демонтаж с помощью вертолета*
- *Abbau mit Hubschrauber*
- *Dismantling with a helicopter*

● *Монтаж греди с ферма „Сичет“ -- автомагистрала Тракия*

● *Монтаж балок фермой „Сичет“ на автомагистрали „Тракия“*

● *Balkenmontage mit SICCET–Kran, Autobahn „Thrakia“*

● *Assembly with the help of the Sicet cantilever crane along the Thrace motorway*



● *Надлез по бул. „Ленин" -- София*
● *Путепровод на бульваре Ленина в Софии*
● *Hochstraße am Boulevard Lenin in Sofia*
● *An overpass along Lenin bulvd., Sofia*

● *Надлез по бул. „Ленин" -- София*

● *Путепровод на бульваре Ленина в Софии*

● *Hochstraße am Boulevard Lenin in Sofia*

● *An overpass along Lenin bulvd., Sofia*

● *Надлез Караулката на автомагистрала Тракия*

● *Путепровод Караулката на автомагистрали „Тракия“*

● *Überführung „Karaulkata“ bei Sofia, Autobahn „Thrakia“*

● *The Karaoulkata overpass along the Thrace motorway*

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